

## Assessing Adventure Programs as a Retention Tool

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**Statement of Purpose:** The purpose of this study was to investigate if an adventure based pre-freshmen orientation would enhance the retention from first to second year of undergraduate students. The program consists of a weeklong adventure based experience consisting of camping, hiking, rock climbing and rappelling, and a 2-day white water rafting trip. It is hypothesized that participation in an adventure based program would be beneficial.

**Literature Review:** Retention of students is a crucial issue for institutions of higher education that cuts across all campuses (Seidman, 2005). Studies have been conducted that conclude extended orientation programs enhance the retention rate of students from their first to second year (Lowe & Cook, 2003; Wilcox, Winn & Fyvie-Gauld, 2005). The Summer Fireside Experience [SFEP] consisted of an enhanced, five day adventure based program that consisted of a variety of outdoor adventure and team activities that supplemented the summer orientation program at a small northeastern university. The other groups investigated consisted of a slightly extended traditional summer orientation program [Freshman Camp] and a control group of students who participated in the minimum two day orientation program. Gass (1987) determined there to be a significant difference among the groups at the end of the freshman year ( $F[2, 157] = 3.38, p < 0.05$ ), although no significant difference at the end of the fall semester. The retention rates for the SFEP students were 15 percent higher than for the Freshman Camp students and 25 percent higher than the control group for the first twelve months.

**Methodology:** Data was run via SAS as a Two-Way T-test. The T-Test is appropriate because the two variables are measured against each other in each test that is conducted. The following were calculated and assessed in order to find a comparison between retention rates in the adventure program participants and all other graduates of the targeted institution. After data output was recorded, the information was analyzed and assessed to view the true comparisons in retentions rates. The following data analysis was produced from these methods.

Variable	group	N	Lower CL		Upper CL		Lower CL		Upper CL	
			Mean	Mean	Mean	Std Dev	Std Dev	Std Dev	Std Err	
retention	AIL	209	0.8929	0.9282	0.9635	0.2361	0.2587	0.2862	0.0179	
retention	control	4826	0.885	0.8937	0.9024	0.3022	0.3083	0.3145	0.0044	
retention	Diff (1-2)		-0.008	0.0345	0.077	0.3005	0.3064	0.3125	0.0216	

### T-Tests

Variable	Method	Variances	DF	t Value	Pr >  t
retention	Pooled	Equal	5033	1.60	0.1107
retention	Satterthwaite	Unequal	234	1.87	0.0624

**Results:** The overall retention rate for the university ranged from 88.6-90.4% per year, whereas the retention rate for the adventure group ranges from 86.4-96.7% per year over the 4 years studied. The

control group ranged from 88.7-90.1%. This group consisted of all first year students not enrolled in the adventure program. Although the tests are shown to give evidence that there is a relationship between the adventure program and the retention of students, when testing the data a p-value of .1107 results, which is not statistically significant.

TOTAL First-Year Enrollment		Sophomore Year Enrollment	Sophomore Male Enrollment	Sophomore Female Enrollment
All first-year students	N =5035 Males =2027 Females =3008	4507 89.5%	1825 90.0%	2682 89.2%
AIL participants	N =209 Males =103 Females =106	193 92.3%	94 91.3%	99 93.4%
Non-AIL participants	N =4826 Males =1924 Females =2902	4314 89.4%	1731 89.9%	2583 89.0%

**Conclusion/Discussion:** In comparing the standard deviation, however, the scores for the adventure program participants is tighter knit to the mean value, which in this case based on the overall mean shows that it is more probable for adventure students to be retained than non-adventure students. This study will continue to collect data to investigate 4 and 6 year graduation rates, in addition to continue to investigate the retention from first to second year. Additionally, it is hoped that more institutes of higher education will implement and investigate the retention benefits of adventure based programs at their location

**Key References:**

Gass, M.A. (1987, Summer). The effects of a wilderness orientation program on college students. *The Journal of Experiential Education*, 10 (2), 30-33.

Lowe, H. & Cook, A. (2003). Mind the gap: Are students prepared for higher education? *Journal of Further & Higher Education*, 27 (1), 53-76

Seidman, A. (Ed.) (2005). *College Student Retention: Formula for Student Success*. Westport, CT: Praeger Series on Higher Education

Wilcox, P., Winn, S. & Fyvie-Gauld, M. (2005). ‘It was nothing to do with the university, it was just the people’: The role of social support in the first-year experience of higher education. *Studies in Higher Education*, 30 (6), 707-722.

**Recommended Readings:**

Astin, A. W. & Oseguera, L. (2005). Pre-college and institutional influences on degree attainment. In *College Student Retention: Formula for Student Success*, Seidman, A. (Ed). Westport, CT: Praeger Series on Higher Education. Pages 245-262.

Berger, J. B. & Lyon, S. C. (2005). Past to present: A historical look at retention. In *College Student Retention: Formula for Student Success*, Seidman, A. (Ed). Westport, CT: Praeger Series on Higher Education. Pages 1-29.

Goodman, K. & Pascarella, E. T. (2006). First-year seminars increase persistence and retention: A summary of the evidence from how college affects students. *Peer Review*, 8 (3), 26-28.